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APPLICANT : ASAHI CHEM IND CO LTD;

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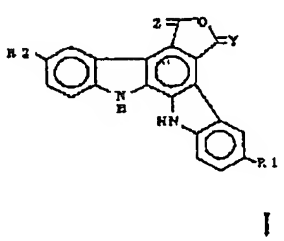
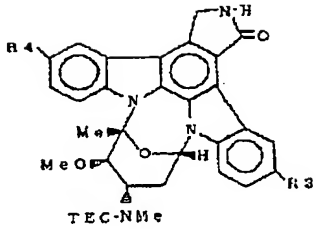
TITLE : INDOLOCARBAZOLE DERIVATIVE AND ANTITUMOR AGENT COMPRISING THE SAME AS ACTIVE INGREDIENT



I



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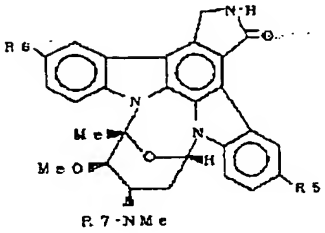

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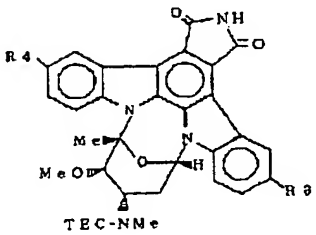

IV

ABSTRACT : PURPOSE: To obtain an antitumor agent having strongly antitumor action by using a new indolocarbozole derivative.

CONSTITUTION: An antitumor agent comprising a derivative of formula I (Y and Z are H or O and Y and Z are not H at the same time; R_1 and R2 are H, formyl, nitro, OH, etc.) and its pharmaceutically acceptable salt as an active ingredient. For example, a compound wherein Y=0, Z=H_2, R_1=H and R_2=HA in the compound of formula I. The compound of formula I, for example, is obtained by reacting a compound of formula II (R_5 and R_6 are H, formyl, etc.; R_7 is H or β,β,β-trichloroethoxy carbonyl) as a starting raw material with an excessive amount of a chlorine gas as a reagent at room temperature to give a compound of formula III (R_2 and R_4 are H or formyl), oxidizing the compound at the position to give an oxo derivative of formula IV, converting the derivative to an acid anhydride type compound and eliminating saccharide part.